

21 July 1964  
MJM:bb:341  
997-112

TRIP REPORT

STATINTL

To:

STATINTL Purpose: To Evaluate [REDACTED] Microdensitometers

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Persons Contacted:

STATINTL

Other

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[REDACTED] and I spent the morning of 15 July monitoring the series of tests which we developed for testing microdensitometers. The [REDACTED] Model 4 instrument being tested was operated by [REDACTED]. He obtained the edge traces in much the same manner as he had for the paper which he co-authored with [REDACTED]\* That is, the traces were made with a fixed "pick up" slit but with various sized illuminating apertures.

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The ruled silver edge used by [REDACTED] people to obtain the results for their paper\* was also scanned. It was determined that the comparison of the performance of the [REDACTED] Model 4 instrument to a diffraction limited system was based on the similarity of the ruled silver edge trace to the theoretical edge trace for the system. The differences between the two edge traces were not considered significant by [REDACTED] and no attempt was made to derive the system sine wave response from the experimental edge trace. This will be done at [REDACTED] using the computer program developed for the Microcap Project.

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\* Optical Analysis of a Microdensitometer System [REDACTED]

[REDACTED] Presented at Optical Society Meeting April 1964

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The "Class I" instrument was not available for our testing or inspection. It was being fitted with a "center finding" device and will be available for testing in the latter part of August. Detailed literature describing the "Class I" instrument was obtained. This literature will be studied prior to the return visit to test the "Class I" instrument. Questions pertaining to the stated linear measurement precision and accuracy will have to be answered during the next visit since personnel familiar with this aspect of the instruments were not present. The lead screw and guiding way assembly is purchased by [redacted] from the [redacted]. We will ask that either someone at [redacted] who is familiar with linear measurement precision or that a representative from the [redacted] be present during our next visit to discuss the quoted accuracy of the "Class I" instrument.

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The "Class III" instrument was also not available for our inspection, but it may possibly be available by the end of August. This instrument was a modular type unit capable of a variety of data processing applications with what reduced metrological performance. [redacted] will produce the basic instrument, which will have such features as a 6" x 8" orientation viewing screen and a smaller alignment viewer which can be used while scanning, for approximately [redacted]. A wide variety of auxiliary equipment will be available at extra cost to provide for rapid processing of large amounts of film. Standard [redacted] optical components will be used with the instrument as they are with all [redacted] instruments.

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